Retrospective comparison of external beam radiotherapy and radical prostatectomy in high-risk, clinically localized prostate cancer: Why EBRT + ADT remains the gold standard

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Purpose. To retrospectively compare results of radical prostatectomy (RP) without adjuvant treatment versus radical external beam radiotherapy (EBRT) plus androgen deprivation therapy (ADT) for high-risk prostate cancer (PCa) patients.

Methods and materials. Between 1995 and 2008, 305 patients with high-risk PCa were treated at the Urology and Oncology departments. 140 patients underwent open RP (74% with lymph node dissection) and 165 underwent definitive EBRT (86% with ADT). 95% received total dose ≥ 74 Gy. The 2 groups were homogeneous in terms of cT stage, Gleason score and initial PSA level. Biochemical relapse was defined as a PSA level > 0.4 ng/ml for RP patients and nadir + 2 for EBRT. The endpoint selected for analysis was to compare biochemical recurrence-free survival (bRFS) among groups.

Results. The median follow-up was 74 months [8–184]. The 7-year bRFS rates for RP and EBRT patients were 41.5 ± 4% and 80 ± 4%, respectively ($p = 0.00$). The disease-specific survival at 7 years was 91 ± 2% in the surgical group and 95 ± 2% in the EBRT cohort (p = ns). Seventy-two of 81 patients with BF after surgery (24 of them had persistent high PSA), were treated with EBRT salvage ± ADT (51% of the surgical patients). In 22 of 29 patients with BF after EBRT (13% of the irradiated group), salvage treatment with ADT or chemotherapy was administered. Only 1 patient was treated with local treatment. At the time of analysis, a total of 30 patients had cancer progression, 20 in the surgery group and 10 in EBRT + ADT group (clinical progression-free survival at 7 years, 85% and 94%, respectively).

Conclusions. Improved outcome with EBRT is observed compared to RP in patients with high-risk PCa regarding bRFS. However, specific cancer mortality was similar between PR and EBRT groups, which emphasizes the efficacy of salvage therapy after surgery.

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Testoterone kinetics after androgen-deprivation therapy in intermediate and high risk prostate cancer: Results from a randomized trial (DART01/05)

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Background. Limited information exists on the absolute relationship between testosterone (T) values and clinical outcomes in prostate cancer (PCa).

Purpose. To evaluate the kinetics of T and the patterns of T recovery after short-term AD (STAD) and long-term AD (LTAD) when combined with high-dose external-beam radiotherapy (EBRT).

Methods. Between 2005 and 2010, 361 patients with intermediate and high-risk PCa were randomized to receive STAD (4 months) versus LTAD (28 months) combined with EBRT as part of a multicentre Spanish prospective randomized phase III trial (DART01/05). Study endpoints included overall survival, metastasis free survival, disease-free survival and biochemical disease-free survival. The serum T and PSA data were obtained every 3 months for the first 2 years and every six months thereafter. Castration level was defined as serum T < 0.5 ng/ml. Time to recovery of serum T level was measured from the last hormone treatment until the time when normal T values (>1 ng/ml) were reached. The median follow-up was 42 months.

Results. Median T basal levels were 4.1 ng/ml and 4.0 ng/ml for patients in the LTAD and STAD arms, respectively. There was no significant correlation between T basal level and patient age, Gleason score, T stage, risk subgroup and biochemical failure (BF). The percentage of patients that experienced recovery of T normal values following ADT was 43.8% in LTAD group and 82.7% in the group treated with STAD. By the Kaplan–Meier method, the median time to recover T normal values was 9.8 months and 22 months ($p < 0.001$) for STAD and LTAD, respectively. The median time to BF was 60.2 months for LTAD (60.6 and 56.9 in patients with and without recovery of normal T values respectively). For STAD group, the median time to BF was 28 months (28.4 and 18.9 respectively).